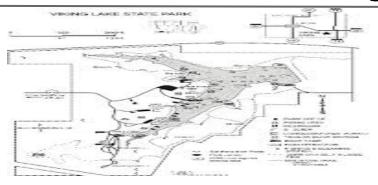


Fishing Stories Size Matters





Adam Hietbrink
Middle School Science
Red Oak Middle School
Iowa DNR- Cold Water Springs

Part I: General Overview of Business

The Iowa Department of Natural Resources purpose is to conserve and enhance our natural resources in cooperation with individuals and organizations to improve the quality of life in Iowa and ensure a legacy for future generations.

Part II: Job Specifics

The Iowa Department of Natural Resources has 16 fish management offices, responsible for ensuring quality fishing in Iowa's lakes, ponds, rivers and streams. Biologists and technicians from these offices create fish habitat, accessible shorelines, improved water quality and much more. They are excellent resources for fishing information for anglers in their local areas.

Part III: Introduce the Problem

Growth of Bluegill varies widely with population density. High population density slows growth while the opposite occurs with low density. Bluegill will reach 1 to 2 inches in length on the average in their first year of life. Most bluegill in Iowa attain lengths of 3.5, 4.5, and 6 inches in their second, third, and fourth year of life. Bluegills mature during the second year under suitable conditions, but slower growth will delay maturity to the third year. Bluegill attain a length of up to 12 inches and weigh up to 2 pounds, but most bluegill caught by anglers seldom exceed 8 inches.

The Bluegill at Viking Lake are not reaching the average size and weight when compared to other Bluegill in lakes in size. What are some solutions to help the Iowa Department of Natural Resources Fisheries Division can do to help the Bluegill reach average size?

Part IV: Background

- Bare necessities of life
- Characteristics that all living organisms have in common
- Freshwater aquatic habitats
- Bluegill reproduction
- Bluegill habitat
- Viking Lake compared to similar lakes in Southwest Iowa.
- Freshwater fish appetite
- Viking Lake water quality compared to other lakes in Southwest Iowa.

Part V: Business Solution

- Iowa Department of Natural Resources fisheries division first looked at the predator to prey relationship by looking at the food sources for the Bluegill in Viking Lake
- Habitat reconstruction by draining the lake in 2006
- Vegetation in Viking Lake looking at vegetaton growth in the lake.

Part VI: Student Solutions

I would expect that the students would come up with a variety of solutions for solving a problem.

Students will come up with a variety of ideas from food, water quality conditions, and habitat improvements to help improve the growth rate of the Bluegill in Viking Lake. Students will have to learn about Biodiversity with freshwater ecosystems.